



Guest Editorial

## The importance of a new journal of arthroscopy

Mats Brittberg

Cartilage Research Unit, University of Gothenburg, Region Halland Orthopedics, Kungälv Hospital, Kungälv, Sweden.



**\*Corresponding author:**

Mats Brittberg,  
Cartilage Research Unit,  
University of Gothenburg,  
Region Halland Orthopedics,  
Kungälv Hospital,  
Kungälv, Sweden.

[mats.brittberg@telia.com](mailto:mats.brittberg@telia.com)

Received : 02 November 2020

Accepted : 02 November 2020

Published : 10 January 2021

**DOI**

10.25259/JASSM\_52\_2020

**Quick Response Code:**



First of all, great congratulations to all Indian surgeons working in the field of orthopedics and using arthroscopy techniques when now the birth of the official journal of the Indian Arthroscopy society (IAS) has been seen.<sup>[1]</sup> Furthermore, it is a great honor to be invited to write an editorial for this new Journal of Arthroscopic Surgery and Sports Medicine (JASSM)!

It is now 108 years, since Severin Nordentoft from Denmark at the 4<sup>th</sup> Congress of the German Society of Surgeons at Berlin in 1912, presented a paper on “Endoscopy of Closed Cavities by the Means of My Trokart-Endoscope.”<sup>[2]</sup> His presentation was about suprapubic cystoscopy and laparoscopy but also gave a hint of the possible use of an endoscopic device in the knee joint as for the early detection of meniscal lesions. He named the knee procedure as “arthroscopy” but it is not known if he performed arthroscopies on patients or only on cadaver knees. In an historical note about Severin Nordentoft written by Kieser and Jackson,<sup>[2]</sup> the authors believe that Nordentoft succeeded to do the first arthroscopy as the descriptions of the handling of his instrument and the view obtained of the compartments of the human knee was so precise.

Otherwise, the next described modern type of arthroscopy was performed with a 7.3 mm cystoscope in 1918 by Takagi<sup>[3]</sup> and followed by Swiss surgeon Bircher who wrote the first paper about arthroscopy in 1921.<sup>[4]</sup> The book “Die Arthroskopie”, the first book on arthroscopy was published in 1938 by another pioneer of arthroscopy, Ernst Vaubel.<sup>[5]</sup>

Modern type of arthroscopy is represented by Takagi’s student Masaki Watanabe who further developed the arthroscope and in 1970; he presented the first ultrathin fiberoptic arthroscopy.<sup>[6]</sup>

Of interest to know is that also a swede has been involved in the early development of endoscopy. It was Jacobaeus from Stockholm who in 1910 published a paper using a trocar endoscope for cystoscopy.<sup>[7]</sup> At those days, international communication was not possible the way it is used today.

Today, numerous procedures that before required extensive open procedures may now be done trans-arthroscopic. Morbidities of procedures and return to work and sports have been fasten up.

I started to do arthroscopy in the late 70s. At that time, you had to look into the joint with your eye through the scope. In the beginning one looked into the joint, found the diseased area and made a mini-arthrotomy to treat it. However, quite fast, one learned to make the whole treatment by arthroscopy techniques and the industry quite fast gave us instruments suitable for mini-invasive handling. For supporting staff, arthroscopies in the beginning were quite dull as the staff did not see what was going on in the joint. At the same time also, the techniques for different joint procedures had to be changed to fit into the arthroscopic approaches. Today’s, arthroscopy with high quality imaging on screens is something different when arthroscopies may turn into

This is an open-access article distributed under the terms of the Creative Commons Attribution-Non Commercial-Share Alike 4.0 License, which allows others to remix, tweak, and build upon the work non-commercially, as long as the author is credited and the new creations are licensed under the identical terms.

©2020 Published by Scientific Scholar on behalf of Journal of Arthroscopic Surgery and Sports Medicine

beautiful movies with a voyage through the chambers of the knee and other joints. Arthroscopy techniques are used all over the world and operations that before were done as large open procedures with long postoperative rehabilitation can now be done with less morbidity, faster rehab when performed by arthroscopy.

The International Arthroscopy Association was founded in 1974 but the start of the IAS came just 5 years later in 1979 and shows that India quite fast realized the importance of arthroscopic technique. Now with the start of the society's own journal, the development of arthroscopic techniques and results will not only be known by the Society's 3000 members but could also be read all over the world spread by this new open-access journal.

In October 1987, our group in Gothenburg, Sweden, Lars Peterson, Anders Lindahl, and myself, performed the first human autologous chondrocyte implantation in the world as an open procedure.<sup>[8]</sup> At that time, we used cells in suspension covered by a periosteal membrane, the first generation ACI. Today, we are using third generation ACI with cells grown on cell carriers or in porous matrices. With cells in scaffolds, the ACI technique can be performed in about 90% of the cases by arthroscopic techniques. We could by small means perform large joint preservations with ACL-reconstructions, meniscal, and cartilage repairs all done through arthroscopic techniques at the same time. With such less extensive procedures, the morbidity becomes low and the postop rehab goes faster and with that also faster return to work and return to sport. New philosophies of how to treat labral and cartilage lesions in the hip have revolutionized young patients' hip problems and arthroscopy techniques for small joints in hand and feet have appeared. Furthermore, soft-tissue arthroscopy for tendon surgeries has appeared and will be further developed. In tissue engineering, future operations to treat cartilage lesions will include 3D-printing of chondrocytes or chondrogenic stem cells in bio-inks with arthroscopic assisted bio-pen implantations.<sup>[9]</sup>

However, also in fracture treatments in less common regions for arthroscopy, arthroscopic techniques will be seen more of in the future. A nice example of such novelties is the paper by Solanki *et al.*, in the second issue of the JASSM.<sup>[10]</sup>

There is a famous citation by French philosophe Voltaire where he asks "Is there anyone so wise as to learn by the

experience of others?" By continuously be reading about new research, case stories, and presentations of new operative techniques in medical journals, we will accumulate new knowledge to be used for the benefit of our patients. As I have been several times to India to give talks at meetings such as IAS and ICS, I have seen the enormous interest that Indian orthopedic surgeons have for novelties and new smart and interesting techniques have been presented at those meetings. It is, however, also very important to present the novelties and results for a wider audience. The launch of this new journal is subsequently of great importance to tell everyone what is going on in India regarding arthroscopy and sports medicine.

I wish the new journal; JASSM best of luck! I strongly believe it will be read not only by the Society's 3000 member but it will also attract international readership.

## REFERENCES

1. Vaishya R. The birth of an official journal of Indian arthroscopy society. *J Arthrosc Surg Sports Med* 2020;1:1-2.
2. Kieser CW, Jackson RW. Severin nordentoft: The first arthroscopist. *Arthroscopy* 2001;17:532-5.
3. Takagi K. Practical experience using Takagi's arthroscope. *J Jpn Orthop Assoc* 1933;8:132.
4. Bircher E. Die arthroendoskopie. *Zentralbl Chir* 1921;48:1460-1.
5. Kieser C, Ernst Vaubel M. D. German pioneer in the field of arthroscopy 1902-1989. *Unfallchirurg* 2000;103:93-7.
6. Watanabe M. Memories of the early days of arthroscopy. *Arthroscopy* 1986;2:209-14.
7. Hatzinger M, Kwon ST, Langbein S, Kamp S, Häcker A, Alken P, Hans Christian Jacobaeus: Inventor of human laparoscopy and thoracoscopy. *J Endourol* 2006;20:848-50.
8. Brittberg M, Lindahl A, Nilsson A, Ohlsson C, Isaksson O, Peterson L. Treatment of deep cartilage defects in the knee with autologous chondrocyte transplantation. *N Engl J Med* 1994;331:889-95.
9. Nguyen D, Hägg DA, Forsman A, Ekholm J, Nimkingratana P, Brantsing C, *et al.* Cartilage tissue engineering by the 3D bioprinting of iPS cells in a nanocellulose/alginate bioink. *Sci Rep* 2017;7:658.
10. Solanki KP, Soundarapandian RS, Manoharan S. A novel surgical technique for arthroscopic fixation of lateral end clavicle fracture using FiberWire and FiberTape. *J Arthrosc Surg Sports Med* 2020;1:199-206.

**How to cite this article:** Brittberg M. The importance of a new journal of arthroscopy. *J Arthrosc Surg Sports Med* 2021;2(1):6-7.